

Remarks

The Official Action rejected claims 1-30. Applicant has amended claims 1, 3, 5-9, 15 and 21-23. Applicant respectfully requests allowance of claims 1-30.

Allowable Subject Matter

The Official Action indicated that claims 18 and 28-29 would be allowable if rewritten to overcome the rejection(s) under 35 USC 112, second paragraph and to include all the limitations of the based claim and any intervening claim. Applicant has addressed the rejection(s) under 35 USC 112, second paragraph. However, Applicant has elected not to rewrite the claims in independent form at this time since the Applicant believes the claims from which they depend are allowable.

Claim Rejections -- 35 USC 112, Second Paragraph

The Official Action rejected claims 15-20 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Official Action indicated that the limitation "said control device" in claim 15 has insufficient antecedent basis. Applicant has amended claim 15 to resolve the antecedent basis issue. Applicant respectfully requests that the rejection of claims 15-20 be withdrawn.

Claim Rejections -- 35 USC 102 (Neal)

The Official Action rejected claims 1 and 21 as being anticipated by Neal (U.S. Patent No. 5,774,706). Applicant believes this rejection has been overcome in view of

the above amendments and the remarks that follow. Applicant respectfully requests the present rejection of claims 1 and 21 be withdrawn.

As is well-established, in order to successfully assert a prima facie case of anticipation, the Official Action must provide a single prior art document that includes every element and limitation of the claim or claims being rejected. Therefore, if even one element or limitation is missing from the cited document, the Official Action has not succeeded in making a prima facie case.

Each of claims 1 and 21, as amended, requires fetching data from a **system memory** based on obtained parameters. The Official Action appears to rely on the hard drive of Neal for a teaching of the “memory component” of original claims 1 and 21. Applicant has changed the “memory component” limitation of claims 1 and 21 to a “system memory”. One of ordinary skill in the art would not consider the hard drive of Neal to be a system memory. This is especially true since Neal identifies component 106 and not the hard drives of its data processing system in FIG. 1 as a system memory.

Since Neal does not teach fetching data from a **system memory** based on obtained parameters, Neal does not teach each and every limitation of claims 1 and 21. Applicant respectfully requests the rejection of claims 1 and 21 be withdrawn.

Claim Rejections – 35 USC 102 (Kelley)

The Official Action rejected claims 1, 3, 21 and 24 as being anticipated by Kelley et al. (U.S. Patent No. 6,295,568). Applicant believes this rejection has been overcome in view of the above amendments and the remarks that follow. Applicant respectfully requests the present rejection of claims 1, 3, 21 and 24 be withdrawn.

Claims 1 and 21

Each of claims 1 and 21, as amended, requires fetching data from a **system memory** based on obtained parameters. The Official Action appears to rely on the PCI hard drive of Kelley for a teaching of the “memory component” of original claims 1 and 21. Applicant has changed the “memory component” limitation of claims 1 and 21 to a “system memory”. One of ordinary skill in the art would not consider the PCI hard drive of Kelley to be a system memory. This is especially true since Kelley identifies component 50 and not the PCI hard drives of its system in FIG. 3 as a system memory.

Since Kelley does not teach fetching data from a **system memory** based on obtained parameters, Neal does not teach each and every limitation of claims 1 and 21. Applicant respectfully requests the rejection of claims 1 and 21 be withdrawn.

Claim 3

Claim 3 includes claim 1 as a base claim. Accordingly, claim 3 is allowable for at least the reasons stated above in regard to claim 1. Moreover, claim 3, as amended, includes additional novel and nonobvious limitations. In particular, claim 3 requires a threshold value that defines a point at which to fetch data from the system memory. The Official Action appears to rely on column 1, lines 45-49 of Kelly for a teaching of a threshold value. In particular, Kelly teaches that a PCI local bus is limited to four slots at 33 MHz and is limited to two slots at 66 MHz. Even if these limitations of a PCI local bus are thresholds, these limitations do not define a point at which to fetch data from the system memory as required by claim 3. Accordingly, claim 3 is further allowable over Kelley. Applicant respectfully requests the rejection of claim 3 be withdrawn.

Claim 24

Claim 24 requires detecting operating characteristics of a bus, selecting a parameter set from a plurality of parameter sets based upon detected operating characteristics of the bus, and fetching data via the bus based upon the selected parameter set. The Official Action appears to rely on column 1, line 62 and column 4, lines 1-9 of Kelley for a teaching of parameter sets. Column 1, line 62 of Kelley merely indicates that the PCI local bus standard is processor independent enabling use of a PCI local bus with processors having different clock frequencies. Column 4, lines 1-9 indicates that due to loading effects a PCI local bus supports up to two add-in boards at 66 MHz. Applicant respectfully points out that these two aspects of Kelley merely identify two characteristics of a PCI local bus. Namely, that a PCI local bus is processor independent and limited to two add-in boards or slots at 66 MHz. These aspects of Kelley, however, do not identify a parameter set as required claim 24. Claim 24 requires selecting a parameter set based upon detected operating characteristics. The processor independent and slot limits characteristics of Kelley are not selected based upon detected operating characteristics of the bus but are inherent in the design of the bus itself. Applicant respectfully requests the rejection of claim 24 be withdrawn.

Claim Rejections -- 35 USC 103 (Neal/Avery)

The Official Action rejected claims 2-4 and 25 under 35 USC 103(a) as being unpatentable over the combination of Neal and Avery et al. (U.S. Patent No. 5,577,213). Applicant has amended claim 3. Applicant respectfully requests the present rejection be withdrawn.

It is well established that obviousness requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Without conceding

the appropriateness of the combination, Applicant respectfully submits that the combination of Neal and Avery does not meet the requirements of an obvious rejection in that the combination fails to teach or suggest all elements of claims 2-4 and 25.

Claim 2

Claim 2 includes claim 1 as a base claim. Accordingly, claim 2 is allowable for at least the reasons stated above in regard to claim 1. Further, claim 2 requires obtaining parameters based upon an operating frequency of a bus, and fetching data based upon a data transfer size of the obtained parameters. The Official Action appears to rely on Avery for such a teaching. Avery, however, appears to provide no teaching in regard to obtaining a data transfer size based upon the operating frequency of the bus. Avery merely indicates how to design buffers of a device adapter based upon a bus transfer size. Applicant has been unable to locate any teaching in Avery related to obtaining the bus transfer size based upon an operating frequency of the bus or fetching data based upon an obtained data transfer size as required by Applicant's claim 2. Applicant respectfully requests that the rejection of claim 2 be withdrawn.

Claim 3

Claim 3 includes claim 2 as a base claim. Accordingly, claim 3 is allowable for at least the reasons stated above in regard to claim 2. Further, claim 3 as amended requires a threshold value that defines a point at which to fetch data from system memory. The Official Action appears to be relying on the different buffer widths described at column 10, line 10 of Avery as a teaching of threshold values. Applicant highly doubts that one skilled in the art would view a buffer width as a threshold value. But even if the buffer widths are threshold values, the buffer widths of Avery do not

define a point at which to fetch data from system memory as required by Applicant's claim 3. Applicant respectfully requests that the present rejection of claim 3 be withdrawn.

Claim 4

Claim 4 includes claim 1 as a base claim. Accordingly, claim 4 is allowable for at least the reasons stated above in regard to claim 1. Further, claim 4 requires obtaining the parameters from a register that corresponds to the frequency of the bus. The Official Action appears to rely on registers described in column 15-16 and table 1 of Avery for such a teaching. Applicant however was unable to locate a register in Avery that corresponds to a frequency of the bus as required by Applicant's claim 4. Table 1 appears to merely provide a VHDL file listing of the files that define the macro module of Avery. Table 2 of Avery provides a very brief description of these files. While Table 1 and Table 2 appear to define various registers, none of these registers appear to correspond to a frequency of the bus. If the Examiner elects to maintain the present rejection of claim 4, Applicant respectfully requests the Examiner to identify which register of Table 1 the Examiner is relying on and specifically identify by column and line number where Avery teaches that the identified register corresponds to the frequency of the bus. Applicant respectfully requests that the present rejection of claim 4 be withdrawn.

Claim 25

Claim 25 includes claim 24 as a base claim. Accordingly, claim 25 is allowable for at least the reasons stated above in regard to claim 24. Further, claim 25 requires selecting a parameter set based upon an operating characteristic of a bus, and fetching

data based upon a data transfer size of the selected parameter set. The Official Action appears to rely on Avery for such a teaching. Avery, however, appears to provide no teaching in regard to selecting a data transfer size based upon the operating characteristics of the bus. Avery merely indicates how to design buffers of a device adapter based upon a bus transfer size. Applicant has been unable to locate any teaching in Avery related to selecting the bus transfer size based upon an operating characteristic of the bus or fetching data based upon an obtained data transfer size as required by Applicant's claim 25. Applicant respectfully request that the rejection of claim 25 be withdrawn.

Claim Rejections -- 35 USC 103 (Kelley/Avery)

The Official Action rejected claims 2, 4, 7-9 and 25 under 35 USC 103(a) as being unpatentable over the combination of Kelley and Avery. Applicant has amended claims 7-9. Applicant respectfully requests the present rejection be withdrawn.

Claim 2

The reasons for patentability of claim 2 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 2. Applicant therefore respectfully requests that the present rejection of claim 2 be withdrawn for the above stated reasons.

Claim 4

The reasons for patentability of claim 4 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 4. Applicant therefore respectfully requests that the present rejection of claim 4 be withdrawn for the above stated reasons.

Claim 7

The reasons for patentability of claim 4 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 7. Applicant therefore respectfully requests that the present rejection of claim 7 be withdrawn for the above stated reasons.

Claim 8

The reasons for patentability of claim 2 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 8. Applicant therefore respectfully requests that the present rejection of claim 8 be withdrawn for the above stated reasons.

Claim 9

The reasons for patentability of claim 3 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 9. Applicant therefore respectfully requests that the present rejection of claim 9 be withdrawn for the above stated reasons.

Claim 25

The reasons for patentability of claim 25 discussed above in regard to the Neal/Avery rejection are pertinent to the present Kelley/Avery rejection of claim 25. Applicant therefore respectfully requests that the present rejection of claim 25 be withdrawn for the above stated reasons.

Claim Rejections -- 35 USC 103 (Chambers/Kelley)

The Official Action rejected claims 5-6, 12-14, 22-23, 26-27 and 30 under 35 USC 103(a) as being unpatentable over the combination of Chambers et al. (U.S. Patent No. 6,289,406) and Kelley. Applicant has amended claims 5-6 and 22-23. Applicant respectfully requests the present rejection be withdrawn.

Claim 5

Claim 5 includes claim 1 as a base claim. Accordingly, claim 5 is allowable for at least the reasons stated above in regard to claim 1. Further, claim 5 requires fetching data based on a threshold value. Therefore, the reasons for patentability of claim 3 discussed above are pertinent to the present rejection of claim 5. Applicant therefore respectfully requests that the present rejection of claim 5 be withdrawn.

Claim 6

Claim 6 includes claim 1 as a base claim. Accordingly, claim 6 is allowable for at least the reasons stated above in regard to claim 1. Further, claim 6 requires fetching data when a timer has elapsed. The Official Action appears to rely on FIG. 4 and timer mechanism 324 of Chambers for such a teaching. However, the system of Chambers does not fetch data when a timer has elapsed. The timer mechanism 324 measures the target latency of read transactions prior to the present read transaction. (Chambers, column 7, lines 30-34). The timer mechanism 324 communicates the target latency to a PCI target that is designed so that it will not retry that access with the PCI initiator until the target latency has passed. In particular, the PCI initiator and PCI target retain control of the bus until either the PCI target supplies the PCI initiator with the requested data, the target latency has passed, or a maximum latency defined by the PCI

specification has passed. (Chambers, column 7, line 66 through column 8, line 42). In other words, the timer mechanism 324 does not cause data to be fetched when it elapses, but stops a data transfer when it has elapsed by relinquishing the bus. Accordingly, Chambers does not teach fetching data when a timer has elapsed as required by claim 6. Applicant respectfully requests that the rejection of claim 6 be withdrawn.

Claims 12-14

Each of claims 12-14 includes claim 7 as a base claim. Accordingly, each of claims 12-14 is allowable for at least the reasons stated above in regard to claim 7.

Claim 22

Claim 22 includes claim 21 as a base claim. Accordingly, claim 22 is allowable for at least the reasons stated above in regard to claim 21. Further, claim 22 requires fetching data based on a threshold value. Therefore, the reasons for patentability of claim 3 discussed above are pertinent to the present rejection of claim 22. Applicant therefore respectfully requests that the present rejection of claim 22 be withdrawn.

Claim 23

Claim 23 includes claim 21 as a base claim. Accordingly, claim 23 is allowable for at least the reasons stated above in regard to claim 21. Further, claim 23 requires fetching data when a timer has elapsed. Therefore, the reasons for patentability of claim 6 discussed above are pertinent to the present rejection of claim 23. Applicant therefore respectfully requests that the present rejection of claim 23 be withdrawn.

Claims 26-27

Each of claims 26-27 includes claim 24 as a base claim. Accordingly, each of claims 26-27 is allowable for at least the reasons stated above in regard to claim 24. Further, each of claims 26-27 requires fetching data based on a threshold value. Therefore, the reasons for patentability of claim 3 discussed above are pertinent to the present rejection of claims 26-27. Applicant therefore respectfully requests that the present rejection of claims 26-27 be withdrawn.

Claim 30

Claim 30 includes claim 24 as a base claim. Accordingly, claim 30 is allowable for at least the reasons stated above in regard to claim 24. Further, claim 30 requires fetching data when a timer has elapsed. Therefore, the reasons for patentability of claim 6 discussed above are pertinent to the present rejection of claim 30. Applicant therefore respectfully requests that the present rejection of claim 30 be withdrawn.

Claim Rejections -- 35 USC 103 (Chambers/Kelley/Avery)

The Official Action rejected claims 10-11, 15-17 and 19-20 under 35 USC 103(a) as being unpatentable over the combination of Chambers in view of Kelley and in further view of Avery. Applicant has amended claim 15. Applicant respectfully requests the present rejection be withdrawn.

Claim 10

Claim 10 includes claim 7 as a base claim. Accordingly, claim 10 is allowable for at least the reasons stated above in regard to claim 7. Further, claim 10 requires fetching data based on a threshold value. Therefore, the reasons for patentability of

claim 3 discussed above are pertinent to the present rejection of claims 10. Applicant therefore respectfully requests that the present rejection of claims 10 be withdrawn.

Claim 11

Claim 11 includes claim 10 as a base claim. Accordingly, claim 11 is allowable for at least the reasons stated above in regard to claim 10. Further, claim 11 requires fetching data when a timer has elapsed. Therefore, the reasons for patentability of claim 6 discussed above are pertinent to the present rejection of claim 11. Applicant therefore respectfully requests that the present rejection of claim 11 be withdrawn.

Claim 15

Claim 15 requires a plurality of registers to each contain parameters corresponding to a different operating frequency of a bus. The reasons for patentability of claim 4 discussed above are pertinent to the present rejection of claim 15. Applicant therefore respectfully requests that the present rejection of claim 15 be withdrawn.

Claims 16-17

Each of claims 16-17 includes claim 15 as a base claim. Accordingly, each of claims 16-17 is allowable for at least the reasons stated above in regard to claim 15.

Claim 19

Claim 19 includes claim 15 as a base claim. Accordingly, claim 19 is allowable for at least the reasons stated above in regard to claim 15. Further, claim 19 requires fetching data based on a threshold value. Therefore, the reasons for patentability of claim 3 discussed above are pertinent to the present rejection of claims 19. Applicant therefore respectfully requests that the present rejection of claims 19 be withdrawn.

Claim 20

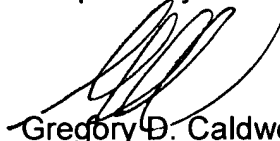
Claim 20 includes claim 15 as a base claim. Accordingly, claim 20 is allowable for at least the reasons stated above in regard to claim 15. Further, claim 20 requires fetching data when a timer has elapsed. Therefore, the reasons for patentability of claim 6 discussed above are pertinent to the present rejection of claim 20. Applicant therefore respectfully requests that the present rejection of claim 20 be withdrawn.

Conclusion

The foregoing is submitted as a full and complete response to the Official Action. Applicant submits that all pending claims are in condition for allowance. Reconsideration is requested, and allowance of the pending claims is earnestly solicited.


Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666. If the Examiner believes that there are any informalities which can be corrected by an Examiner's amendment, a telephone call to the undersigned at (503) 439-8778 is respectfully solicited.

Respectfully submitted,


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